

Sub B-1
-- 4. The method of claim 1, including defining each backup path in the network to be node disjoint from its corresponding active path.

5. A method of establishing restorable paths in an information network in response to arriving traffic requests, the network having a number of nodes and links between corresponding pairs of nodes, comprising:

receiving requests at a first node of the network for transmission of traffic to a second node of the network, wherein a given request specifies a desired transmission bandwidth for an active path and a backup path to be established between the first and the second nodes;

selecting active links in the network to form the active path in response to a given request, wherein the active links each have an available bandwidth corresponding to the bandwidth specified by the given request; and

selecting backup links in the network to form the backup path for restoring the formed active path, by using a maximum total bandwidth reservation among the active links selected to form the active path to determine a required

bandwidth reservation for each backup link selected to form the backup path.

6. The method of claim 5, including distributing information to nodes in the network relating to (a) total bandwidth reserved by each link in the network for all active paths currently formed in the network, and (b) total bandwidth reserved by each link in the network for all backup paths currently formed in the network.

7. The method of claim 5, including determining if each potential backup link for the backup path to be formed is capable of accommodating the required bandwidth reservation for the active path prior to selecting the potential backup link.

8. The method of claim 7, wherein said determining step includes comparing the total bandwidth reserved by each potential backup link for all current backup paths in the network, with the required bandwidth reservation for the backup path to be formed.